

REMARKS

Reconsideration is requested.

Claim 1-22 are pending. Claims 10-22 have been withdrawn from consideration. The applicants request consideration of claim 21, which depends from claim 4, with the subject matter of claims 1-9. The applicants believe claim 21 reads on the elected subject matter.

The Examiner is requested to have a BIB DATASHEET entered in the PTO IFW which includes an indication that the priority document has been received and the 35 USC 119 requirements have been satisfied. Alternatively, the Examiner is requested to contact the undersigned in the event anything further is required in this regard.

The Section 102 and Section 103 rejections of claims 1-3 over Alaska (U.S. Patent No. 5,667,676), are traversed. The Section 103 rejection of claims 1-9 over Alaska (U.S. Patent No. 5,667,676), Hanmer (U.S. Patent No. 5,788,127) and Marmon (U.S. Patent No. 4,437,487), is traversed. Reconsideration and withdrawal of the rejections are requested in view of the following distinguishing comments.

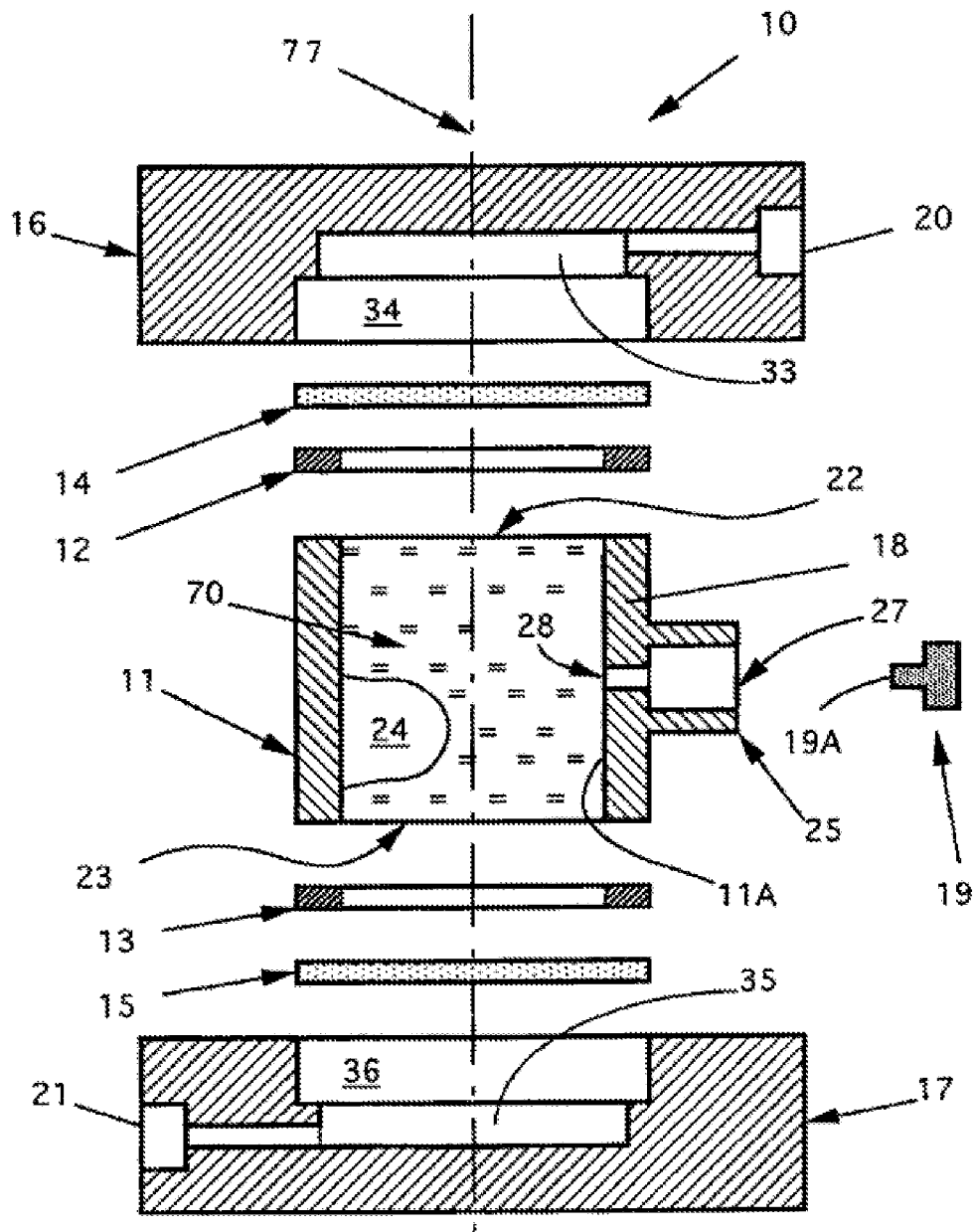
The chromatography column of the claims is intended to be filled in with a dry resin, i.e., a resin in a solid state. This resin is only made of particles and does not comprise any buffer solution.

The applicants submit that the chromatography column of the invention comprises a first port and a second port, the first port is configured to put the enclosure of the column in communication with a tank comprising the dry resin to be loaded, and the second port is configured to put the enclosure in communication with a pump so as

to force the dry resin to move from the tank into the enclosure. The invention provides solutions to make easier the loading and the unloading of the column with the dry resin through the first port. In a first aspect of the invention, the first port forms a passage having a minimum section which is at least 10 000 times as large as a particle section corresponding to the maximum size particles. According to another aspect of the invention, the first port is provided with an inlet valve comprising a chamber, an inlet duct and a piston, the chamber communicating with the enclosure through a first aperture, the inlet duct communicating with the chamber through a second aperture and being adapted to be connected to the tank, and the piston being movable in the chamber between a closing position, where it closes the first and second apertures, and an opening position, where it opens the first and second apertures and it lets free substantially all the space of the chamber between the first and second apertures.

The applicants believe that invention is neither disclosed nor suggested by the cited documents and consideration of the following in this regard is requested.

Alaska discloses a side packed chromatographic column **10** comprising a column member **11** having an inner chamber **24** for containing a particulate sorbent **70**, and at least one side-packing port **25** integrally formed on a sidewall thereof which enables the sorbent to be packed and unpacked from the column member. The port **25** has a sufficient diameter so that the sorbent **70** can be easily packed and unpacked from the column member during use. The column further comprises inlet and outlet plumbing ports **20**, **21** formed in upper and lower lids **16**, **17**, respectively.



The applicants submit that Alaska fails to disclose the loading of the column with a dry resin. The applicants believe that the cited column concerns exclusively the loading of a column with a resin in a liquid phase, i.e., a resin (particles) in suspension in a diluted buffer. Despite the fact that a particulate sorbent is loaded in the column of

Alaska, the particles of the sorbent should be diluted in a buffer so as to be loaded in the column.

Moreover, the applicants believe that Alaska does not disclose that the packing port **25** is configured to put the column member in communication with a tank comprising the dry resin. The applicants submit that the cited art fails to disclose the connection of one of the inlet and outlet plumbing ports **20, 21** with a pump so as to load the column member with the resin.

The first port of the presently claimed invention forms a passage having a minimum section which is at least 10000 times as large as a particle section corresponding to the maximum size particles.

While Alaska may provide a packing port **25** which has a sufficient diameter so that the sorbent **70** can be easily packed and unpacked, Alaska fails to teach or suggest any particular relationship between the particle section and the section of the packing port. Even if it were considered that Alaska would suggest using a packing port with an inner diameter greater than the diameter of the sorbent particles (for example 2 to 10 times the size of the biggest particles), Alaska does not suggest inclusion of a port with a section of at least 10 000 times as large as the particle section corresponding to the maximum size of the sorbent particles. Moreover, the packing port **25** of the column is not provided with a valve, as required for example by claim 4 of the present application.

The cited secondary documents are not believed to cure the deficiencies of the primary reference. The applicants understand Hanner to disclose a liquid dispensing valve. The present invention however concerns a dry resin dispensing valve. The valve

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of the cited patent comprises an axial inlet orifice **30**, an outlet orifice **12**, and a plurality of pistons located and movable in a chamber. These pistons do not let free the space of this chamber when they are in an opening position and do not close both inlet and outlet orifices when they are in a closing position, as recited in the claimed invention. The applicants submit that Marmon concerns a drain valve mounted in the bottom of an aircraft fuel tank to allow draining of condensate.

The claims are submitted to be patentable over the cited art and withdrawal of the Section 102 and Section 103 rejections is requested along with a Notice of Allowance. The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required.

Respectfully submitted,

NIXON & VANDERHYTE P.C.

By: /B. J. Sadoff/
 B. J. Sadoff
 Reg. No. 36,663

BJS:
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100